

Title (en)
OPTICAL INTERFERENCE MEASUREMENT APPARATUS

Title (de)
OPTISCHE STÖRUNGSMESSVORRICHTUNG

Title (fr)
APPAREIL DE MESURE D'INTERFÉRENCE OPTIQUE

Publication
EP 3879221 A1 20210915 (EN)

Application
EP 21156524 A 20210211

Priority
JP 2020042765 A 20200312

Abstract (en)
A multi-channel optical interference measurement apparatus is provided at low cost without incurring an increase in size of the apparatus. A first return light that is received by a first measurement head is guided to a detector via a first optical path and a fiber coupler, and a second return light that is received by a second measurement head is guided to the detector via a second optical path and the fiber coupler. An optical path length D1 from the fiber coupler to the leading end of the first measurement head, an optical path length D2 from the fiber coupler to the leading end of the second measurement head, a maximum optical path length Rlmax of the measurement range of the first measurement head, an optical path length S1 of the first reference light that interferes with the first return light, and an optical path length S2 of the second reference light that interferes with the second return light are set such that the relation $D1 + R1_{max} - S1 < D2 - S2$ is satisfied.

IPC 8 full level
G01B 9/02 (2006.01); **G01S 17/34** (2020.01)

CPC (source: CN EP US)
G01B 9/02016 (2013.01 - EP); **G01B 9/02028** (2013.01 - EP); **G01B 9/0205** (2013.01 - EP); **G01B 9/02057** (2013.01 - EP);
G01B 9/0209 (2013.01 - EP); **G01D 5/35306** (2013.01 - CN); **G01S 7/4818** (2013.01 - US); **G01S 17/32** (2013.01 - US)

Citation (applicant)
JP 2010276462 A 20101209 - SUMITOMO ELECTRIC INDUSTRIES

Citation (search report)
• [X] US 2019120608 A1 20190425 - KENNEDY BRENDAN [AU]
• [X] US 2015176969 A1 20150625 - JENSEN THOMAS [CH]
• [A] EP 3401634 A1 20181114 - TAYLOR HOBSON LTD [GB]
• [A] US 2008144040 A1 20080619 - DRABAREK PAWEL [DE], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3879221 A1 20210915; CN 113390444 A 20210914; JP 2021143938 A 20210924; JP 7484249 B2 20240516; US 2021286055 A1 20210916

DOCDB simple family (application)
EP 21156524 A 20210211; CN 202110180753 A 20210208; JP 2020042765 A 20200312; US 202117170942 A 20210209